

Madigan Army Medical Center

Referral Guidelines

Tuberculosis in Children

Diagnosis/Definition

- A person who has an infection with *Mycobacterium tuberculosis* (TB) and who has signs, symptoms, or radiographic evidence of disease is considered to have **TB disease**. TB disease can be pulmonary and/or extrapulmonary.
- **Infectious TB** refers to TB disease of the lungs or larynx in a person who has the potential to transmit TB to other people.
- **Latent tuberculosis infection (LTBI)** is defined as TB infection in a person who has a positive **intradermal purified protein derivative (IPPD)** or **quantiferon gold** test result, no physical findings of disease, and chest radiograph findings that are normal or reveal evidence of healed infection (eg, granulomas or calcification in the lung, hilar lymph nodes, or both).
- **Positive IPPD** is defined as:
 - Greater than or equal to **5 mm induration** in immunocompromised patients or any patient who has had exposure to another individual with infectious TB.
 - Greater than or equal to **10 mm induration** in patients who are younger than 4 years of age; have other medical conditions, including Hodgkin disease, lymphoma, diabetes mellitus, chronic renal failure, or malnutrition; or have increased exposure to tuberculosis disease (born in a high-prevalence regions of the world, frequently exposed to adults who are HIV infected, homeless, users of illicit drugs, residents of nursing homes, incarcerated or institutionalized, or migrant farm workers, have traveled to high-prevalence regions of the world).
 - Greater than or equal to **15 mm induration** in patients who are older than 4 years of age and without any risk factors.

Initial Diagnosis and Management

- A TB questionnaire should be used to assess risk of TB infection at first contact with a child and every 6 months thereafter for the first 2 years of life, then annually after 2 years of age if possible. A TB questionnaire can be found in AHLTA by selecting the patient, "Patient Questionnaire" under Health History, "Clinic" under "Available Questionnaires/Test, then select "Questionnaires," "Pediatric Clinic," "Well Child Clinic," and "Tuberculosis Exposure Risk Factors."
- Any patient exposed to infectious TB who has impaired immunity (eg, HIV infection) and or is younger than 4 years of age requires initiation of therapy for LTBI once active TB disease is excluded. These patients should have an IPPD placed and referred immediately to Pediatric ID by paging the Pediatric ID doctor on call. Immunocompetent patients with a negative IPPD will be retested 12 weeks after last contact and therapy discontinued if their IPPD remains negative. Immunocompromised patients must continue therapy for LTBI for up to 12 months.
- Any patient who is suspected of having infectious TB should have a mask placed immediately, transferred to a negative pressure room, airborne precautions instituted, and Pediatric ID consulted.
- All IPPD tests must be read by a trained health care professional 48-72 hours after placement.

Ongoing Management and Objectives

- A diagnosis of possible infection with TB should be made on the basis of the strength of the skin test reaction as outlined above.
- Any positive patients should then be sent for a CXR.

Indications for Specialty Care Referral

- Any patient with a positive IPPD, negative CXR and no clinical concern for active disease should be referred within 4 weeks to Pediatric Infectious Disease Clinic.
- Any child with evidence of active tuberculosis infection, or a patient < 4 years of age or immunocompromised who has been exposed to infectious TB should be referred immediately to the Pediatric Infectious Disease Clinic, regardless of IPPD result.
- IPPD is unreliable in infants younger than 3 months of age; therefore, these infants should be referred to Pediatric ID if they have risk for TB infection.

Note: Upon patient check-in please notify staff for use of patient isolation area.

Criteria for Return to Primary Care

- After the patient has either been assessed to be uninfected, or has initiated therapy for treatment of a TB infection, he/she may return to primary care for management of unrelated health problems.
- Infected patients should continue to have follow-up visits to the Pediatric Infectious Disease clinic for monitoring of their condition until therapy has been completed.

References

SOP for managing IPPD interpretation and evaluation in Pediatric patients.

Last Review for this Guideline: **April 2012**

Referral Guidelines require review every three years.

Maintained by the Madigan Army Medical Center - Quality Services Division
Clinical Practice and Referral Guidelines Administrator